Bonneville Power Administration
Fish and Wildlife Program FY99 Proposal

Section 1. General administrative information

Kalispel Pend Oreille Wetlands Wildlife Mitigation Project

Bonneville project number, if an ongoing project 9106000

Business name of agency, institution or organization requesting funding
Kalispel Tribe of Indians

Business acronym (if appropriate) KT

Proposal contact person or principal investigator:

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Subcontractors.

Organization	Mailing Address	City, ST Zip	Contact Name

NPPC Program Measure Number(s) which this project addresses.
11.3D.6 and 11.3E

NMFS Biological Opinion Number(s) which this project addresses.

Other planning document references.
Kalispel Tribe of Indians Wildlife Mitigation and Restoration for Albeni Falls Dam: Flying Goose Ranch Phase I

Subbasin.

Lower Pend Oreille River

Short description.
Restore and enhance aproximately 600 acres of riparian and wetland habitats as partial mitiagtion for losses associated with the construction of Albeni Falls Dam. Includes work on seven habitat types including four wetland types and riparian forest.

Section 2. Key words

Mark	Programmatic Categories	Mark	Activities	Mark	Project Types
	Anadromous fish		Construction		Watershed
	Resident fish	+	O & M		Biodiversity/genetics
X	Wildlife		Production		Population dynamics
	Oceans/estuaries		Research		Ecosystems
	Climate	+	Monitoring/eval.		Flow/survival
	Other	X	Resource mgmt		Fish disease
			Planning/admin.		Supplementation
			Enforcement	X	Wildlife habitat en-
			Acquisitions		hancement/restoration

Other keywords.

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship
9501000	Kalispel Resident Fish Project	Resident fish habitat projects on or adjacent to project with the Kalispel Bass Hatchery and components located on the project site.
9700400	Upper Columbia Basin Resident Fish Joint Stock Assessment	Data gathering and habitat project occur on and adjacent to project
9106001	Pend Oreille Wetlands II	Acquisition and incorporation into existing property management

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task

1	Administration	a	property management/reporting
		b	management enforcement
		c	fire protection/management
2	O & M	d	fencing
		e	building/H2O structure maintenance
		f	noxious weed control
		g	repair/maintain bank stabilizations
3	Enahcements	h	increase native riparian forest habitat
		i	encourage aspen regeneration in existing stands
		j	enahacne/restore aspen stands
		k	enhance/restore native scrub-shrub habitat
		l	pasture management for waterfowl
		m	implement new management objectives for the Pend Oreille wetlands II addition
		n	wetland enhancements and water level managment

Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1	5/1993	12/2099	5.00%
2	5/1993	12/2099	30.00%
3	5/1994	11/2003	65.00%
			TOTAL 100.00%

Schedule constraints.
Riparian enahcements to be completed in 2003. Hardwood management completed in 2002. Upland forest managmeent complete in 1999. Wetlands ehancements complete in 2001. Island nesting structures completed in 1997. Bank stabilization completed in 1996.

Completion date.
Project enhancements - 2003; O&M - ongoing

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
Personnel	1 biologist @ $37,440 and 1 Tech @ 18,304	$55,744
Fringe benefits	.33 of salaries	$18,395
Supplies, materials, non-expendable property		$10,000
Operations & maintenance		$12,000
Capital acquisitions or improvements (e.g. land, buildings, major equip.)		
PIT tags	# of tags:	
Travel		$3,500
Indirect costs	Est at 25% of direct costs minus capital and contract services	$24,410
Subcontracts		
Other	Equipment lease	$15,000
TOTAL		$139,049

Outyear costs

Outyear costs	FY2000	FY01	FY02	FY03
Total budget	$156,000	$162,000	$168,000	$175,000
O&M as % of total	35.00%	35.00%	35.00%	35.00%

Section 6. Abstract

The Pend Oreille Wetlands Wildlife Mitigation project was proposed as partial mitigation for wildlife losses associated with the construction of Albeni Falls Dam. Approximately 600 acres of floodplain property were purchase by the BPA in 1992 (440 acres) and 1997 (160 acres) and are being managed by the Kalispel Tribe to benefit wildlife habitats and associated species. Seven habitat types exist on the project. These habitat types are; forested wetland, scrub-shrub wetland, emergent wetland, wet meadow or floodplain pasture, open water, upland forest, and riparian deciduous forest. These cover types represent Habitat Suitability Index (HSI) models for target species as part of Habitat Evaluation Procedures (HEP). This procedure is used to monitor and evaluate the habitat and as an accounting measure to credit the BPA for wildlife mitigation. Restoration and enhancement activities include riparian reforestation, bio-engineered bank stabilization, hardwood stand enhancement, water control structures/water level management, prescribed burning, native vegetation enhancement, coniferous stand improvements, pasture management, nesting island construction, and general operations and maintenance

activities. Each habitat cover type relates to a target species used in HEP to determine losses and gains. The target species are Bald eagle (breeding and wintering), Black-capped Chickadee, Canada Goose, Mallard, muskrat, white-tailed deer, and Yellow Warbler. Other species/guilds benefiting include, reptilian and amphibian guilds, resident fish populations, black bear, neotropical migratory birds, and small mammal populations.

Section 7. Project description

a. Technical and/or scientific background.

In 1954, Albeni Falls Dam was constructed by the Army Corps of Engineers. The effects of the Dam was to reverse normal hydrologic patterns by inundating 6,617 acres of riparian and wetland habitats along the littoral zones of Lake Pend Oreille and Clak Fork and Pend Oreille Rivers. In 1987, IDFG was funded to assess these loses and develop a mitigation plan for habitat protection and enhancement for the Dam. In 1990, the Pend Oreille Wetlands project was submitted to the Implementation Planning Process (IPP) and reviewed by the BPA Policy Review group (PRG). Of 32 projects submitted, this project was ranked third in importance within the region. In 1991, the NPPC voted 7-1 directing BPA to purchase the property. Finally, in December of 1992 the BPA purchased the property and in May 1993 entered into agreement with the Tribe to fund management of the project. In 1997, the property was transferred into turst with the BIA for the Tribe. As of 1997, the Tribe has implemented the management plan through year five. With five years of enhancements yet to be completed, the Tribe proposed a 164 acre purchase adjacent to the project during the 1994 rule making. During 1997 the Tribe helped to complete all necessary requirements and in July the property was purchased. It is now being managed under the original project and funding. Currently, about 600 acres or 585 HU's are protected, 182 HU's have been enhanced, and at least 515 HU's will be enhanced by 2003. HEP and other M & E methods will be employed to determine the level of success and crediting to be given BPA for Albeni Falls Dam. The projects are located in Pend Oreille county, Washington, Secs 18, 19, and 20, T. 34N., R. 44E. W.M. The project mitigates habitat for wildlife loses in-kind and on-site.

b. Proposal objectives.

1. Restore approximately 30 acres of eroded shoreline into a riparian black cottonwood forest.
2. Increase hardwood stands densities from 100 stems/acre to 900 stems/acre.
3. Restore approximately 20 acres of pasture to scrub-shrub wetland habitat.
4. Increase wetland quantity by approximately 90 surface acres and quality by using moist soil management techniques.
5. Increase overall stand health and individual tree heights using standard silviculture practices.
6. Stabilize and protect 1,500 feet of eroding shoreline and manage pasture for meeting life history requisites of various waterfowl.
7. Reduce human disturbance to species/habitats.

c. Rationale and significance to Regional Programs.

As part of mitigating losses associated with the construction of Albeni Falls Dam, this project is related to the NPPC FWP through mitigation planning documents: Martin et al. (1988) - Albeni Falls wildlife protection, mitigation, and enhancement plan and Merker (1993) – Kalispel Tribe of Indians wildlife mitigation and restoration for Albeni Falls Dam: Flying Goose Ranch phase I. This project mitigates habitat in-kind (i.e., riparian forest and wetland) and in-place (15 miles downstream of Albeni Falls Dam and adjacent to the Reservation). The predominant habitat types are consistent with the NPPC priorities for the upper Columbia River Basin (wetland and riparian). The project is associated with those implemented by the Idaho Department of Fish and Game on Lake Pend Oreille. Because habitats mitigated are similar, shared knowledge and techniques can enhance the outcome of future projects and their objectives. All habitat types on the project can be linked to one or more of the HEP target species used in Albeni Falls Dam mitigation planning.

Project methods and milestones will be shared with Basin wildlife managers to better understand and implement mitigation in the future.

d. Project history

Project reports include Merker (1993) – the project management framework, monthly progress reports, Entz (1997 - unpublished) – Five year habitat evaluation procedures for the project, and 1997 annual summary report.

As of 1997 the Tribe has completed all project clean-up activities, implementation of three water control structures for wetland enhancement, completed construction of two goose nesting islands, completed 20 of 25 acres of balck cottonwood reforestation, 5 acres of scrub-shrub wetland restoration, and 1500 feet of shorline stabilization and erosion protection. Also, annual pasture management, water control structure operation and other project related O & M activities.

Adaptive management will be implemented based upon monitoring and evaluation of individual project success. Alternative methods will be devbeloped and/or employed as information suggests that project goals and objectives are not being met.

Project has been ongoing since its purchase in December of 1992 (5 years). Project costs to date are $617,785.

e. Methods.

The project is being managed to replace in-kind habitat lost due to the construction of Albeni Falls Dam. Initial estimates are to credit the BPA with at least 977 HU’s

associated with the project and new estimates, with the addition, are at least 1,327 HU's. Methods will include the following.

1. Riparian reforestation – using five acre test plots, two methods of ground preparation for black cottonwood reforestation were used to direct future planting strategies. In 1997, it was determined that removal of competing vegetation was necessary for survival of black cottonwood trees. Observation, enumeration, and HEP will be used to monitor and evaluate the success of the project. Adaptive management principles will be used to alter management activities in order to meet project objectives in a cost-effective manner.
2. Riparian forest enhancement – using root disturbance methods, hardwood stand (black cottonwood and aspen) recruitment is to be improved from 100 stems/acre to 900 stems/acre. A stem/acre enumeration technique and HEP will be used to monitor success of the strategy. Accordingly, adaptive management techniques will be applied in order to increase effectiveness of this objective.
3. Scrub-shrub enhancement –restoration efforts using native vegetation to increase the occurrence of this habitat type will occur throughout project enhancement timelines. Plot sampling and HEP will be used to monitor the success and evaluate (under adaptive management principles) future needs or alterations to meet specific project goals.
4. Wetland enhancements – using water control structures and vegetative enhancements, improve and increase wetland quality, quantity, and diversity on the project. Using HEP, avian sampling, and modified Daubenmire plots, monitor the effectiveness of the techniques toward meeting project goals. Also, evaluate the success and use adaptive management to alter project objectives to meet overall resource goals.
5. Upland forest management – use forest silviculture practices to meet project objectives. HEP and target species/guild surveys will be used to monitor project effectiveness and evaluate project success by providing adaptive management strategies for meeting long-term project goals
6. Pasture and shoreline management – use standard techniques (mowing and bio-engineered stabilization techniques) to manage pastures and shorelines to meet project objectives. Use HEP and target species surveys to monitor and evaluate project success. Adaptive management will be incorporated to meet project goals and maximize long-term success.
7. Human management – using seasonal restrictions, kiosks, educational presentations, and signs people management will be managed to increase opportunity for project success by reducing conflict associated with human disturbance. Use observation to monitor and evaluate the success of these measures in meeting the project goals. Employ adaptive management strategies to alter management coarse and improve overall effectiveness of the project in meeting goals and objectives.

f. Facilities and equipment.

Facilities key to project success are office space, computer, lights, phone, e-mail, facsimile, and associated support provided by the Tribe through indirect costs. With the exception of office space, which is funded by the project.

Vehicles are supplied by the Tribe with maintenance and operational funding provided by the project budget.
On the project site exists a storage facility acquired with the property. This storage barn receives maintenance from the project budget. All heavy equipment (tractor, swather, bailer, backhoe, loader, trackhoe, and dump truck) is leased through the Tribe. All other equipment is expendable and purchased in accordance with the schedule outlined in the management plan.

g. References.

Kalispel Natural Resource Department (KNRD). 1997. Fish and wildlife management plan. Kalispel Tribe of Indians, Usk, Washington.

Martin, et al. 1988. Albeni Falls wildlife protection, mitigation, and enhancement plan

Merker, C. 1993. Kalispel Tribe of Indians wildlife mitigation and restoration for Albeni Falls Dam: flying goose ranch phase I. DE-BI79-91BP20287, Bonneville Power Administration, Portland, Oregon.

Section 8. Relationships to other projects

This project is related to wetland and floodplain related projects along the Pend Oreille River through the sharing of locally adapted knowledge of these systems. Currently, the project is managed in association with an adjacent US Forest Service property, Reservation wetland/floodplain enhancement projects, county shoreline protection/stabilization efforts, and Pend Oreille Conservation District wetland/floodplain and shoreline improvement projects. In 1994, the Tribe, in cooperation with Pend Oreille County and the Pend Oreille Conservation District, implemented nine shoreline stabilization techniques as demonstration projects for area residents to view and receive information on different techniques. The project also allows for public access to the adjacent US Forest Service property for wildlife management and associated compatible human use.

Section 9. Key personnel

Personnel working on this project, one full time biologist and one full time technician, meet or exceed specific qualifications necessary to implement the project as outlined by the Kalispel Tribe of Indians.

Section 10. Information/technology transfer

Information will be in the form of annual progress reports, scientific reports, internal reports/documents, and/or public and professional presentations.